CLAIMS

The invention claimed is:

1. A method to treat neovascular disease of the eye, comprising:

administering a targeted photosensitizing compound which selectively binds to abnormal endothelium that lines or composes neovasculature tissue; and

illuminating the neovasculature tissue with light for a period of time sufficient to activate the photosensitizing compound thereby causing damage to neovasculature tissue.

2. The method of claim 1, wherein said light is non-laser light.

3. The method of claim 1, wherein said light is laser light.

4. The method of claim 1, wherein the neovasculature tissue is present in retina, choroid or both.

5. The method of claim 1, wherein the treated neovascular disease is diabetic retinopathy.

6. The method of claim 1, wherein the treated neovascular disease is macular degeneration.

7. The method of claim 1, wherein the treated neovascular tissue arises from tumors of the eye.

8. The method of claim 1, wherein said tumors are benign.

9. The method of claim 1, wherein said tumors are malignant.

10. The method of claim 9, wherein said tumors are malignant uveal melanomas.

11. The method of claim 1, wherein the targeted photosensitizing compound is bound to a first component of a bindable pair and wherein a second component of the bindable pair is selected from the group consisting of: receptor present on abnormal endothelium; ligand bindable to receptor present on abnormal endothelium; antigen present on abnormal endothelium; and antibody bindable to antigen present on abnormal endothelium.

12. The method of claim 11, wherein the targeted photosensitizing compound is incorporated into a liposomal preparation.

13. The method of claim 11, wherein the ligand is selected from the group consisting of: the ED-B domain of fibronectin; antibody specifically elicited to ED-B domain of fibronectin; VEGF; VEGF receptor; and $\alpha v\beta 3$ integrin receptor.

14. The method of claim 1, wherein the targeted photosensitizing compound is bound to a receptor composition that mimics a receptor present on abnormal endothelium.

15. The method of claim 14, wherein the targeted photosensitizing compound is incorporated into a liposomal preparation.

16. The method of claim 1, wherein the targeted photosensitizing compound is bound to a bi-specific antibody construct that further comprises both a ligand component and a receptor component.

17. The method of claim 16, wherein the targeted photosensitizing compound is incorporated into a liposomal preparation.

18. The method of claim 1, wherein the photosensitized neovasculature is illuminated for at least 4 minutes.

19. The method of claim 1, wherein the photosensitized neovasculature is illuminated for at least 20 minutes.

20. The method of claim 1, wherein the photosensitized neovasculature is illuminated for at least 1 hour.

21. The method of claim 1, wherein the photosensitized neovasculature is illuminated for at least 24 hours.

22. The method of claim 1, wherein the neovasculature tissue is treated with a total fluence of light irradiation from between about 240 J/cm^2 to about 900 J/cm^2.

23. The method of claim 1, wherein the non-laser light source is a light emitting diode.

24. The method of claim 1, wherein the non-laser light source is ambient light.

25. A method to treat neovascular disease of the eye, comprising:

administering a first targeted photosensitizing compound which selectively binds to a first targeted tissue; and

administering a second targeted photosensitizing compound which selectively binds to a second targeted tissue; and

illuminating the first and second targeted tissues with non-laser light for a period of time sufficient to activate said first and second photosensitizing compounds thereby causing damage to said first and second targeted tissue.

26. The method of claim 25, wherein said first targeted tissues is abnormal endothelium that lines or composes neovasculature tissue; and said second targeted tissue is a tumor antigen.

27. The method of claim 26, wherein said first targeted photosensitizing compound comprises a ligand selected from the group consisting of: the ED-B domain of fibronectin; antibody specifically elicited to ED-B domain of fibronectin; VEGF; VEGF receptor; and $\alpha v\beta 3$ integrin receptor.

28. A kit to treat neovascular disease of the eye, comprising a targeted photosensitizing compound and instructions teaching a method according to claim 1.

29. A kit according to claim 28 wherein the targeted photosensitizing compound binds to a first component of a bindable pair and wherein a second component of the bindable pair is selected from the group consisting of: receptor present on abnormal endothelium; ligand bindable to receptor present on abnormal endothelium; antigen present on abnormal endothelium; and antibody bindable to antigen present on abnormal endothelium.

30. A kit according to claim 29, wherein the targeted photosensitizing compound is incorporated into a liposomal preparation.

31. A kit according to claim 29, wherein the ligand is selected from the group consisting of: the ED-B domain of fibronectin; antibody specifically elicited to ED-B domain of fibronectin; VEGF; VEGF receptor; and $\alpha v\beta 3$ integrin receptor.

32. A kit according to claim 28, wherein the targeted photosensitizing compound binds to a receptor composition that mimics a receptor present on abnormal endothelium.

33. A kit according to claim 32, wherein the targeted photosensitizing compound is incorporated into a liposomal preparation.

34. A kit according to claim 28, wherein the targeted photosensitizing compound binds to a bi-specific antibody construct that further comprises both a ligand component and a receptor component.

35. A kit according to claim 34, wherein the targeted photosensitizing compound is incorporated into a liposomal preparation.

36. A method of instructing a person to treat neovascular disease of the eye, comprising instructing a person to conduct a method according to claim 1.

37. A method of instructing a person to treat neovascular disease of the eye, comprising instructing a person in the use of the kit of claim 28.

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